

IN THE SPECIFICATION:

Please rewrite the table on page 8 as follows:

S. No.	Description	DNA Based Number																					
2.	Limits to integer representation in n bases/cell	Maximum: $+4^{n-1} - 1$ Minimum: -4^{n-1}																					
3.	Integer addition	Addition of 100 and 63 : <table style="margin-left: auto; margin-right: auto;"> <tr> <td style="text-align: center;">Carry</td> <td style="text-align: center;">TT</td> <td></td> </tr> <tr> <td></td> <td>AAA TCTA</td> <td>$(100)_{10}$</td> </tr> <tr> <td style="text-align: center;">+</td> <td>AAA AGGG</td> <td>$(63)_{10}$</td> </tr> <tr> <td style="text-align: center;">Result</td> <td>AAA CCAG</td> <td>$(163)_{10}$</td> </tr> </table>	Carry	TT			AAA TCTA	$(100)_{10}$	+	AAA AGGG	$(63)_{10}$	Result	AAA CCAG	$(163)_{10}$									
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+	AAA AGGG	$(63)_{10}$																					
Result	AAA CCAG	$(163)_{10}$																					
4.	Integer subtraction	Subtracting 63 from 100: Sol. Complement of $(63)_{10}$ is taken and added to $(100)_{10}$ <table style="margin-left: auto; margin-right: auto;"> <tr> <td style="text-align: center;">Carry</td> <td style="text-align: center;">T T T T</td> <td></td> </tr> <tr> <td></td> <td>AAA T C T A</td> <td></td> </tr> <tr> <td></td> <td>$(100)_{10}$</td> <td></td> </tr> <tr> <td></td> <td style="text-align: center;">+ G G G G A A T</td> <td></td> </tr> <tr> <td></td> <td>$(-63)_{10}$</td> <td></td> </tr> <tr> <td style="text-align: center;">Result</td> <td>AAA A C T T</td> <td></td> </tr> <tr> <td></td> <td>$(37)_{10}$</td> <td></td> </tr> </table> <p>Note: Extra carry T has to be ignored</p>	Carry	T T T T			AAA T C T A			$(100)_{10}$			+ G G G G A A T			$(-63)_{10}$		Result	AAA A C T T			$(37)_{10}$	
Carry	T T T T																						
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5.	Real number representation	Real numbers are represented as Floating-Point in 32-bases/cell. Having three components i.e. sign bit, magnitude and exponent: <ul style="list-style-type: none"> - leftmost base represents the sign + next 23bases represent the magnitude + rest 8 bases represent exponent - Sign base "T" represents positive real number - Sign base "C" represents negative real <p>Real number is composed of:</p>																					
6.	Real number addition	Addition of 1.1 and 1.1 Soln. Magnitude is taken for processing: <table style="margin-left: auto; margin-right: auto;"> <tr> <td style="text-align: center;">Carry</td> <td style="text-align: center;">TT</td> <td></td> </tr> <tr> <td></td> <td>AAAAAAAAAAAAAAAACGAAA</td> <td></td> </tr> <tr> <td></td> <td>AAAAT $(1.1)_{10}$</td> <td><u>(SEQ ID NO:1)</u></td> </tr> <tr> <td></td> <td style="text-align: center;">+ AAAAAAAAAAAAAACGAAA</td> <td></td> </tr> <tr> <td></td> <td>AAAAT $(1.1)_{10}$</td> <td><u>(SEQ ID NO:1)</u></td> </tr> <tr> <td></td> <td>= AAAAAAAAAAA</td> <td>AAAAAAAAAAATTTC</td> </tr> </table>	Carry	TT			AAAAAAAAAAAAAAAACGAAA			AAAAT $(1.1)_{10}$	<u>(SEQ ID NO:1)</u>		+ AAAAAAAAAAAAAACGAAA			AAAAT $(1.1)_{10}$	<u>(SEQ ID NO:1)</u>		= AAAAAAAAAAA	AAAAAAAAAAATTTC			
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Please rewrite the table on page 9 as follows:

S. No.	Description	DNA Based Number
		<u>AAAAAAAT</u> $(2.2)_{10}$ <u>(SEQ ID NO:2)</u>
7.	Real number subtraction	Subtracting 12.3 from 10.1 Soln. Addition of 10.1 and -12.3 would give the result <u>T</u> <u>AAAAAAAAAAAAAAT</u> $(10.1)_{10}$ <u>(SEQ ID NO:3)</u> <u>TCTT</u> <u>AAAAAAAT</u> $(-12.3)_{10}$ <u>(SEQ ID NO:4)</u> <u>+C</u> <u>GGGGGGGGGGGGGGGGGGGG</u> <u>CATT</u> <u>AAAAAAAT</u> $(-2.2)_{10}$ <u>(SEQ ID NO:5)</u> <u>=C</u> <u>GGGGGGGGGGGGGGGGGGGG</u> <u>GCCC</u> <u>AAAAAAAT</u>

After page 9, last line, add the following Sequence Listing on a separate page: